

CONFIDENTIAL - SUBJECT TO PROTECTIVE ORDER

UNITED STATES DISTRICT COURT
DISTRICT OF MASSACHUSETTS

BRAUN GmbH,

Plaintiffs,

v.

Civil Action No. 03-CV-12428-WGY

RAYOVAC CORPORATION,

Defendant.

EXPERT REPORT OF
LAURA B. STAMM

I. ASSIGNMENT

1. I have been retained by Counsel for Rayovac Corporation¹ ("Rayovac") to provide an analysis of damages suffered by Braun GmbH ("Braun") as a result of any alleged infringement by Rayovac of U.S. Patent No. 5,711,328 and/or U.S. Patent No. 5,649,556 ("patents in suit").

EXHIBIT P

¹ I note that on May 2, 2005, Rayovac officially changed its name to Spectrum Brands, Inc. For the purpose of this report, I will continue using the previous corporation name.

CONFIDENTIAL - SUBJECT TO PROTECTIVE ORDER

II. QUALIFICATIONS

2. I am a Managing Principal in the Boston office of Analysis Group, Inc. Analysis Group is a consulting firm specializing in microeconomic, financial and accounting analysis. As a consulting economist and accountant, I have conducted damages assessments in numerous cases involving commercial disputes and intellectual property issues. I have a Master of Science degree in management with a concentration in finance from the Massachusetts Institute of Technology. Prior to my joining Analysis Group, I spent several years in the Business Investigation Services Group at Coopers & Lybrand. A copy of my curriculum vitae is attached as Appendix A. A list of cases in which I have testified as an expert witness either at deposition or trial within the last four years is also included in Appendix B.

III. SCOPE OF ANALYSIS

3. I have been retained by Counsel for Rayovac to provide an analysis of damages suffered by Braun as a result of any alleged infringement by Rayovac of the patents at issue relating to a cleaning device for electric shavers.
4. Braun alleges that Rayovac has manufactured and sold electric shaving products that incorporate a cleaning system that infringes Braun's patents. I have analyzed the damages to Braun as a result of the alleged infringement. I was also asked to review and respond to the expert report of Jesse David submitted by Braun in this matter ("the David report").
5. In completing this assignment, I reviewed materials produced by both parties, read deposition testimony pertaining to damages, and performed independent research. I also spoke with employees of Rayovac. Appendix C contains a list of materials I reviewed in forming my opinions, as well as the names of individuals with whom I spoke. In general, I relied on the following types of information:
- Financial information including product sales, prices and costs from both Braun and Rayovac;
 - Information related to products, competition, pricing and business strategy produced by the parties, or publicly-available;
 - Deposition testimony;
 - Expert report and back-up materials of Jesse David;

CONFIDENTIAL - SUBJECT TO PROTECTIVE ORDER

- Various court filings; and
 - Conversations with various Rayovac employees.
6. This report and the opinions expressed herein are based on my analysis of the materials I have reviewed to date. I understand that discovery is on-going. I may supplement, refine or revise my analysis as appropriate if additional testimony, documents or other discovery materials become available.
7. My firm is being compensated at the rate of \$475 per hour for time I incur on this matter. Payment is not contingent on my findings or on the outcome of this case. Part of the work was performed by others at Analysis Group under my direction. My findings are predicated on the necessary assumptions that the patents in suit are valid and infringed. However, I express no opinion on the issues of liability.

IV. SUMMARY OF CONCLUSIONS

8. I understand that Rayovac contends that it could have offered an alternative, acceptable, non-infringing cleaning system had it not been able to sell the accused products with the existing cleaning system. In this case, Braun cannot establish that it has lost sales from Rayovac's infringement, and it is therefore entitled only to damages in the form of a reasonable royalty.
9. In my opinion, a reasonable royalty for this technology is five dollars per unit. This royalty would be applied to all of Rayovac's sales of the accused products. The resulting damages are \$2.25 million before interest. Exhibit 1 summarizes the royalty damages.
10. In the event that the Court does not find that the proposed design-around alternatives provide an acceptable and available alternative, I have analyzed the profits lost by Braun due to Rayovac's sales of its existing shaving products with a cleaning system. Based on my review of the materials, I conclude that Braun would have captured only a minimal share of Rayovac's rotary product sales and a somewhat larger share of Rayovac's foil product sales. I calculate that under this scenario, Braun has lost approximately \$2.33 million in profits on Rayovac's sales from the date of notice of infringement (December 2, 2003) through May 2005. In addition, I calculate under this scenario lost profits from replacement cleaning solution sales to be \$66,854 and from lost replacement foil/cutter sales to be \$2.26 million. An award of reasonable royalty damages on the remaining Rayovac sales would be an additional \$1.74 million. See Exhibit 1.

CONFIDENTIAL - SUBJECT TO PROTECTIVE ORDER

11. I find no evidence of price erosion damage to Braun. Braun's average intercompany selling price from its combined sales of products with the cleaning system has risen over the damages period.
12. In the remainder of this report, I present these findings in more detail.

V. BACKGROUND

A. Rayovac

13. Rayovac is a global branded consumer products company with leading market positions in two major product categories: consumer batteries and electric personal care products.² Rayovac completed the acquisition of Remington Products Company, L.L.C., on September 30, 2003.³ It continues to sell the Remington electric shaver products under the Remington brand name. Rayovac offers both rotary and foil shavers. Remington is the second largest competitor in the electric shaver market behind Norelco.
14. Three Remington men's shavers are accused of infringing the patents in suit. The R-9500 is a rotary product that was introduced in approximately October 2003. The MS-5500 is a foil product that was introduced in August 2004. The MS-5700 is also a foil product and was introduced in October 2004. In addition, Remington's WDF-7000 model, a women's foil product that was introduced in March 2005, is accused of infringing the patents in suit. Exhibit 2A summarizes the Remington SmartSystem product line. Exhibit 3 shows the average retail prices of these products compared to products offerings of the other three major brands.

B. Braun

15. Braun is a manufacturer of small electric appliances based in Kronberg, Germany. The company has been a member of The Gillette Company ("Gillette") since 1967.⁴ I understand that Gillette Commercial Operation North America ("CONA") has had the responsibility for the sales, marketing, and distribution of Braun's products in the United States since April

² See: Rayovac Corporation, Form 10-K for the fiscal year ended September 30, 2004, p. 3.

³ See: Rayovac Corporation, Form 10-K for the fiscal year ended September 30, 2003, p. 1.

⁴ <http://www.braun.com/na/company/portrait.html>. Last visited on 6/8/05.

CONFIDENTIAL - SUBJECT TO PROTECTIVE ORDER

- 2000, under a Distributorship Agreement by which CONA is the exclusive distributor of the products in the United States.⁵ I further understand that Gillette is not a party to this lawsuit.
16. Braun sells only foil shavers. Between January 2002 and April 2005, Braun has sold eight different foil shaver products that used the automatic self-cleaning Clean&Charge system.⁶ Exhibit 2B sets forth the technical specifications and pricing of these products.

C. Other Competitors

17. The largest competitor of Braun and Remington in the dry shaver market is Norelco, with a total market share of approximately 50% during the relevant damages period. Norelco sells only rotary shavers, and had approximately 83% market share of the rotary products during the relevant period. Panasonic is the fourth competitor of note with products that compete against the accused products. Exhibit 6 presents a market share analysis of the electric shaver market shares for the years 2002 through April 2005.

VI. DETAILED FINDINGS – LOST PROFITS

A. Recovery Standards

18. Braun has accused Rayovac of manufacturing and selling electric shavers that contain a cleaning base that infringes the patents in suit. I understand that Braun is seeking damages in the form of lost profits, price erosion and reasonable royalty. In order to establish a basis for lost profits, it is my understanding that the Plaintiff must establish that but for the infringement, it would have made the infringing sales. As Dr. David notes, making such a claim has historically required showing proof of four factors established in *Panduit Corp. v. Stahlin Bros. Fibre Works*: (1) demand for the patented product; (2) the absence of non-infringing substitutes at the time of infringement; (3) the manufacturing and marketing capability to exploit the demand; and (4) the amount of the profit the patent holder would have made.⁷
19. In instances in which there are suppliers other than the claimant and the alleged infringer, the Panduit test has been modified to allow a claimant to recover lost profits even where there is

⁵ See: Plaintiff's Supplemental Answers to Defendant's Interrogatories, Answer to Interrogatory No. 19, p. 9.

⁶ Source: NPD Data – R14182-R14209.

⁷ 575 F. 2d 1152, 1160 (6th Cir. 1978).

CONFIDENTIAL - SUBJECT TO PROTECTIVE ORDER

evidence of certain acceptable non-infringing substitutes (i.e., Factor 2 of the Panduit test is not satisfied). According to *State Indust., Inc. v. Mor-Flo Indus., Inc.*, if the claimant is able to prove Factors 1, 3, and 4 of Panduit, it may be entitled to profits on a certain share, but not all, of the alleged infringer's sales.⁸

20. In *Grain Processing Corp. v. American Maize-Products*, the Court held that a lost profits analysis is necessarily a "but-for" inquiry that requires a reconstruction of the market as it would have developed.⁹ A fair and accurate reconstruction must take into account, where relevant, alternative actions the infringer foreseeably would have undertaken had it not infringed. With sound economic proof, an infringer's alternative and acceptable products that were either "on the market" or "available to the market" may be used to defeat a claim for lost profits damages.
21. I have been informed by Counsel that as a matter of law, Braun is not entitled to lost profits damages on Rayovac sales made before notice of infringement was given to Rayovac. I have been told that the date of notice is the date of the complaint – December 2, 2003 – because Braun did not mark its products pursuant to the marking provisions of 35 U.S.C. Section 287.¹⁰
22. I have not seen evidence that Braun could not manufacture and market additional products, therefore I will discuss only the other three Panduit factors below.

B. Demand for the patented product

23. Various marketing documents produced by both parties establish that there is a demand for the cleaning system. However, Dr. David agrees that it is not the sole factor that influences purchase, and that one cannot assume that 100 percent of Rayovac's sales would have been made by Braun. I discuss these considerations in detail below in my discussion of a market share allocation.

⁸ 883 F.2d 1573 (Fed. Cir. 1989), cert. denied, 493 U.S. 1022 (1990).

⁹ 1999 U.S. App. LEXIS 18203 (Fed. Cir. 1999).

¹⁰ Braun's Answers to Remington's First Set of Interrogatories, Answer to Interrogatory No. 9, p. 9.

CONFIDENTIAL - SUBJECT TO PROTECTIVE ORDER

C. Alternative non-infringing substitutes

24. I have relied upon certain opinions expressed by Mr. Philips in his second expert report. The first alternative design would utilize a gas cleaning system that would clean the shaving head by blowing the dirt out into a filter. I understand from Mr. Philips' report that the mechanical designs are complete and that only a matter of months is required to bring the design to market. I understand from Rayovac that such a product could be designed in such a way that the manufacturing costs were comparable to the current cleaning system products. I have reviewed concept tests done by Rayovac involving consumer testing of the air cleaning concept.¹¹ These tests show that the purchase intent by consumers is not significantly different for this concept than for the current solution-based cleaning concept. Thus, this alternative would be acceptable to consumers.
25. I understand that the second alternative design involves various minor mechanical design elements including removal of the fan, eliminating the bracket system, and adding a cover piece to the base. I understand that Mr. Philips will testify that all of these alternative designs were readily available to Rayovac. I understand that none of these features change the performance of the shaving product or the cleaning product and are therefore not likely to impact the consumer purchase decision. Furthermore, various models of the Activator product do not include either the fan or the bracket, thus verifying the consumer acceptability of certain alternatives that Mr. Philips has opined were readily available to Rayovac.
26. Had Rayovac designed its accused products to incorporate these alternative methods of achieving the same desired cleaning functionality and been able to sell the products at the same price, there is no reason to believe that consumers would have changed their purchasing behavior. Thus, in such a but-for world, Rayovac would have made the same sales that it actually made, and Braun would not have made any more sales. Therefore, under this scenario, Braun has no basis to claim lost profits damages.
27. I understand that Braun may contend that there is no design-around alternative, therefore I have also analyzed a scenario in which I make that assumption. Even in this scenario, there are acceptable non-infringing electric shaver products that perform the same basic shaving functions and that can be cleaned in some manner. In the following section, I discuss my

¹¹

R13244-R13246

CONFIDENTIAL - SUBJECT TO PROTECTIVE ORDER

consideration of these alternative products and my conclusion as to the best allocation of the allegedly infringing sales to Braun.

D. Determination of Lost Profits assuming no design-around

1. Market Share Analysis

- 28. Braun contends that had Rayovac not included the infringing cleaning system in its products, Braun would have made a substantial portion (but not all) of the infringing sales. Two factors complicate the analysis of lost profits. First, there are, and have been throughout the damages period, other acceptable non-infringing electric shavers available on the market. As discussed above, Norelco is the largest player in the market, with almost a 50% share of the electric shaver market revenues during the relevant period. Second, a simple market share allocation such as that used in the *Mor-Flo* case is not appropriate because the various available products are not identical, and the consumer's decision of which product to purchase is influenced by many factors other than the inclusion of the patented feature.
- 29. A USA Shaver Market Segmentation study conducted by SKIM Analytical for Braun in February 2004 found that the top five shaver needs among electric shaver users relate to the closeness of the shave, how comfortable and quick the shave is and the appearance of the face after the shave.¹²
- 30. Similarly, a Scout Market Intelligence analysis of the Men's Shaving market conducted by Equifax Marketing Services for Rayovac in 2004, found that among electric shaver purchasers, the cutting system and plug-in/cordless power system were the two most important features overall. The cleaning system feature, in comparison, was ranked as the 18th feature in importance out of 28 features, following features such as pop-up trimmer, product feel/shape, flexible foils/heads, number of cutting heads, portability, product appearance, quick charge, and shaves per charge, to name a few.¹³
- 31. After the introduction of the Syncro product in Japan, Braun did an analysis of consumer reply cards. The analysis shows that only one in three Syncro systems was bought as a result of the Clean & Charge feature. The other top reasons were brand, and shaving

¹² B008484

¹³ R13926-R14077, pp. 77-78.

CONFIDENTIAL - SUBJECT TO PROTECTIVE ORDER

performance.¹⁴ Similarly, a Remington study found that closeness, features, and new technology drive repeat purchases.¹⁵

32. There are notable differences between the Rayovac accused products and the Braun products on which the plaintiff is claiming lost sales. Below I discuss the significance of these differences.

Rayovac heavily markets and advertises its Titanium blades¹⁶ and other unique features including the pop-up mini-blade on the foil shaver.

33. Rayovac's use of Titanium is the focus of its marketing.¹⁷ In discussing its strategy to enter the premium priced foil segment, Rayovac discussed its plan to "leverage" the Titanium concept.¹⁸ Rayovac actively markets the Titanium brand to consumers. For example, the most prominent packaging feature on Remington shavers is the word "TITANIUM" in large font.
34. Remington also believes it has other advantages over features in the Braun foil shavers such as raked cutting technology, pop-up mini-foil, and a three position pop-up trimmer.¹⁹ In concept documents for the MS-5700, Rayovac lists ten features, with Titanium first, the pop-up mini-screen second, and the cleaner third.
35. Consistent with the above information, the Equifax report referred to above indicates that the Titanium brand is significantly more important to purchasers of Remington shavers' than to purchasers of other shavers, while the cleaning system feature is less important.²⁰

¹⁴ B002254

¹⁵ R13647

¹⁶ The shavers' blades are coated with titanium nitride.

¹⁷ R13635

¹⁸ R13185

¹⁹ R13608

²⁰ *Ibid*, pp. 79-80.

CONFIDENTIAL - SUBJECT TO PROTECTIVE ORDER

Braun shavers also offer unique features.

- 36. Braun shavers offer unique features such as a 4-way moving head and platinum coated foil in the Syncro System Smart Logic; and smart foil technology, an advanced middle trimmer, and a 3-stage shaving system in the Activator shaver.²¹
- 37. Braun users come disproportionately from Braun (37% compared to its market share of 25%) and from Norelco (37%). Only 17% of Braun Syncro System users had been previous Remington users.²²

Braun's products sell at higher retail price points.

- 38. The most recent market data show that Braun's average retail price on its cleaning system products was almost \$140, compared to the average retail price on Remington shavers of approximately \$110, a difference of approximately 30%.²³
- 39. Exhibit 3 shows the product offerings of Braun, Norelco, Panasonic and Remington by price category based on the average retail selling price as of November 2004. As this exhibit shows, Braun and Norelco both have products that sell for above \$150. The highest price Remington shaver is the MS-5700 at an average selling price of \$118. The closest Braun product in terms of price is the Syncro 7526 that sold for an average of \$108. Dr. David assumed an elasticity of demand of -2, indicating that consumers of these products are price sensitive.

Braun's product line has never included rotary products.

- 40. Over time, there has been a gradual shift towards rotary shavers.²⁴ However, there is a high degree of loyalty to a particular cutting system among shaver consumers. For example, the Equifax report found that 78% of Norelco purchasers, 71% of Remington purchasers, and 70% of Braun purchasers ranked cutting system as an important feature.²⁵ That same study

²¹ <http://www.braun.com/na/products/shavinggrooming/dryshaving/dryshaving.html>. Last visited on 6/9/05.

²² B007833

²³ NPD Data – R14182-R14209. The \$30 price difference was confirmed by Mr. Matthew Parker in his deposition, p. 156 (rough transcript).

²⁴ R13433

²⁵ R13926-R14077, p. 79.

CONFIDENTIAL - SUBJECT TO PROTECTIVE ORDER

found that almost four in five replacement and additional purchasers were loyal to their cutting system and that previous rotary users were slightly more likely than foil owners to buy the same type of cutting system.²⁶ Consistent with a belief in system loyalty, Remington viewed a Braun rotary entry or a Norelco foil entry as a risk/threat to its shaver business.²⁷

41. I reviewed data collected and analyzed by Rayovac from consumer profile cards – the product registration cards that consumers receive with the packaging. The data show that of the R-9500 purchasers, only 10.2 percent had previously used a Braun product.²⁸ System loyalty should be given particular weight in the analysis of the accused products because consumers are typically “trading up” to these higher-end products, as opposed to users new to electric shavers who may not be predisposed to one system or the other.²⁹
42. The product differences discussed above suggest that, absent the infringing features, many of the consumers who purchased a Rayovac accused product likely would have purchased a product other than one of the Braun cleaning system products. My review of the historical data confirms that there is little evidence of significant lost sales to Braun.
43. Exhibit 4 shows that Braun’s retail unit sales have been increasing since Braun’s introduction of these products. Exhibit 5 shows the same analysis for Braun’s intercompany sales to Gillette, both in terms of unit sales and dollar sales, and results in the same finding of increasing sales.
44. I analyzed market share using retail sales data from NPD.³⁰ Exhibit 6 shows that from 2002 to 2004, Rayovac’s market share did increase significantly, going from 18.6% to 24.5%. However, Braun’s market share increased slightly during this time, while Norelco’s share fell by approximately the same amount as the increase in Rayovac’s share. These data suggest that Rayovac was taking sales away from Norelco, not Braun.
45. The consumer profile data from Rayovac confirm that Remington shavers are more likely to be taking sales away from Norelco. The majority of R-9500 purchasers (60.8%) responded

²⁶ *Ibid*, p. 68.

²⁷ R13635

²⁸ R14216-R14217.

²⁹ See deposition testimony of Matthew Homes Parker, pp. 199 (rough transcript).

³⁰ The NPD Group is a third party provider of retail sales data. The NPD data exclude Wal-Mart.

CONFIDENTIAL - SUBJECT TO PROTECTIVE ORDER

that they had planned to buy a Norelco, whereas only 15.9% had planned to buy a Braun. Among MS-5500 purchasers, the results show more interaction between Remington and Braun. With the foil product, 51.4% indicated that they had planned to purchase a Braun.³¹

46. Based on the data I have reviewed, I find there is little evidence that sales of the accused rotary products took sales away from Braun. Therefore, I estimate that only a small percentage of Rayovac's rotary product sales should be allocated to Braun. For the purposes of my calculations, I have used 15% as the best point estimate. The documents suggest a greater interaction between Rayovac and Braun's foil products, therefore I have used 50% in my calculations.

2. Lost profits on lost shaver sales

47. Braun produced summary level data showing its intercompany profits by product for its cleaning system products. Dr. David states his understanding that the costs being subtracted from the intercompany sales are direct manufacturing costs and other incremental costs, but at present, I have no means for verifying that these costs do indeed reflect all incremental costs. I have used the profit figures in my calculations and will revise the calculations if necessary after more information about these costs becomes available.
48. Dr. David has assumed in his lost profit calculations that Braun's lost sales would be comprised of Flex, Syncro, and Activator product sales in the same proportion as Braun's actual sales. For damages beginning in Q2 2004, that calculation implies that more than a quarter of the lost sales would have been sales of the top of the line Activator 8595 and Syncro 7680 models. These premium products carry retail prices of over \$150 – a price point at which there are no accused products. For the lost profits calculation, the distinction between the products is important because Braun's average profit on these products is higher on a per unit basis. I believe a more reasonable assumption is that the lost sales would have been comprised of the three Braun products that are more comparable in price to the Remington shavers. As Exhibits 2A, 2B, and 3 show, the Remington accused products are more closely mapped to the Activator 8585, the Syncro 7526 and the Flex 5790 products in terms of both features and price. Matthew Parker testified that Braun studied the effect to which the new Activator models would cannibalize sales of the Syncro line and found that the

³¹ R14216-R14217

CONFIDENTIAL - SUBJECT TO PROTECTIVE ORDER

interaction between the two products was small enough to warrant maintaining both product lines.³²

49. I have calculated lost profits using the average profit rate on the three products cited above. Exhibit 7 shows the calculation of Braun's lost profits by quarter beginning with Rayovac sales in December 2003. I calculate the total lost profits to be \$2.3 million on Rayovac's through May 2005.

3. Lost Profits on Accessories

50. I understand that lost profits are awardable on collateral sales if the collateral products are tied functionally to products that compete with those that infringe the patent or patents at issue. In this case, the collateral sales include refill cleaning solution cartridges and replacement blades/cutters.
51. In Exhibits 8 and 9 I have calculated lost profits from the lost sales of these accessories using the same assumptions as Dr. David with respect to the amount of refill and replacement sales. At present, I have no means of verifying the profit data from Braun. I calculate lost profits from replacement cleaning solution sales to be \$66,854 and from lost replacement foil/cutter sales to be \$2.3 million.

VII. DETAILED FINDINGS – PRICE EROSION

52. Braun is claiming lost profits damages based on its intercompany sales and profits from Braun to Gillette, yet Dr. David looks to retail sales prices for his price erosion claim. Furthermore, although he claims price erosion on all lost sales, he calculates the extent of the price erosion using retail data on only the Syncro product (in contrast to his lost profits analysis where he uses the higher profitability figures that result from taking an average of the Syncro and Activator products).
53. I performed a similar analysis of the retail data analyzed by Dr. David. Dr. David's conclusions of price erosion were based on his position that there was an increasing decline in the Syncro retail price during 2004. Exhibits 10A and 10B are similar to charts in Dr. David's report, except that they include data for all of Braun's cleaning system product lines, instead of just the Syncro line of products. The graphs show no evidence of a change in the

³² Deposition testimony of Matthew Homes Parker, pp. 154-155 (rough transcript).

CONFIDENTIAL - SUBJECT TO PROTECTIVE ORDER

price trend following the introduction of Remington's R-9500 product in October 2003. The downward trend in retail pricing that Dr. David cites occurs prior to the introduction of the Activator product during the second quarter of 2004 and is explained by Braun's Mr. Parker as part of the natural life-cycle of the Syncro product. According to Mr. Parker, products need to be "refreshed" on average every three years, and during that three-year life of a product, the retail price decreases.³³ (See Exhibit 13 for the average retail price of the Syncro products and the Activator products separately).

54. I also analyzed the intercompany data provided by Braun for evidence of price erosion caused by the introduction of the Remington's R-9500 rotary product in October 2003 or its MS-5500 foil product in September 2004. Mr. Parker testified that Braun did not take any specific pricing action following the launch of the Remington rotary product.³⁴ He cited some increased promotional activities which could affect the retail price, however such activities were done by Gillette and would not have affected Braun's profits.
55. The data produced by Braun show that the intercompany prices are set in euros on an SKU level and in more recent periods seem to remain constant for several consecutive months.³⁵ For example, during 2002, the price on the most popular Syncro model decreased monthly; however, in 2004, the price on the Syncro 7680 model is at approximately 77 euros for January and February of 2004, and then drops to approximately 61 euros in March where it remains for the rest of the year.
56. Exhibit 11 presents the quarterly average intercompany prices in euros by SKU from 2002 through the first quarter of 2005. Exhibit 12 presents a graph of this information aggregated up to the model level (e.g., Syncro 7680). The graph shows a declining price trend from the introduction of the Syncro products in early 2002 through the end of Q2 2003. The trend is reversed in Q3 2003 and prices increased through Q4 2003, before resuming the general downward trend. Since Q2 2004 (the time of the introduction of the Activator line), the prices have remained constant despite the introduction of Remington's foil product in September 2004.

³³ Deposition testimony of Matthew Homes Parker, p. 143 (rough transcript).

³⁴ Deposition testimony of Matthew Homes Parker, p. 53 (rough transcript).

³⁵ SKU stands for "stock keeping unit" and reflects each unique packaging. For example, there are four separate SKU's for the Activator 8595 model.

CONFIDENTIAL - SUBJECT TO PROTECTIVE ORDER

57. Exhibit 14A shows the average intercompany sales price in US dollars. Upon the introduction of the higher-end Activator product in Q2 2004, the Syncro price dropped by more than \$10. However, because the Activator carries a higher selling price than the Syncro, the average price (weighted by unit sales) for the cleaning system products continues to increase through 2004 and into 2005. When the price is calculated as an average across all models (weighted by unit sales) and the effect of the falling dollar is considered, Braun's price per unit has actually been increasing throughout the damages period. (Exhibit 14B shows the same analysis with the prices shown in euros).

VIII. DETAILED FINDINGS – REASONABLE ROYALTY

58. The courts have affirmed specific guidelines for determining a reasonable royalty to compensate a licensor for infringement. These guidelines include the concept of a hypothetical negotiation, and the use of the *Georgia-Pacific* factors.³⁶
59. A reasonable royalty can be thought of as the rate that would have resulted from a hypothetical negotiation between a patent owner and a potential licensee of the patented invention at the time of first infringement. The hypothetical negotiation framework assumes that the patent is known to be valid, the licensee's use of the invention infringes the patent, the patent holder is willing to issue a license, the licensee is willing to take a license and all relevant business facts are known to both parties.
60. In this case, I consider the hypothetical negotiation that would have taken place at the time of the alleged first infringement, in or around October 2003 – the date that Rayovac's R-9500 was introduced.

A. Bargaining Context for the Hypothetical Negotiation

61. I start my analysis of the hypothetical negotiation by specifying each party's bargaining position in the negotiations.
62. At the time of the hypothetical negotiation, Rayovac's predominant business objective was to enter the \$80+ (and \$100+) price segment.³⁷ Rayovac believed that the cleaning system with

³⁶ *Georgia-Pacific v. United States Plywood Corp.*, 318 F. Supp. 1116, 1120-21 (S.D.N.Y. 1970), modified and affirmed, 446 F.2d 295 (2d Cir. 1971).

³⁷ R002812-002814, R13760, R13771.

CONFIDENTIAL - SUBJECT TO PROTECTIVE ORDER

the Titanium feature would make a competitive offering in this segment.³⁸ However, Norelco and Panasonic had already entered this segment with products that did not include a cleaning system.

63. Rayovac believes that there are other possible mechanisms for achieving an innovative cleaning feature that will not infringe the patent. There would be some cost and some risk to pursuing these alternatives as opposed to licensing the patents from Braun. Although Dr. David contends there are no design-around possibilities, Mr. Parker testified that Norelco will be introducing a line of products this Fall that will include a cleaning system.³⁹
64. The products that incorporate the cleaning system were not expected to offer higher profitability. The price premium for these products was expected to approximate the added cost of manufacturing the cleaning system.⁴⁰ The advantage to Rayovac is the ability to offer a more complete range of price points.
65. The profit per unit is approximately \$15.62 after accounting for direct product expenses but not general and administrative costs.⁴¹ Allocating a share of those administrative costs would decrease the profit further. This profit of \$15.62 is not the maximum rate that Rayovac would expect since many of the incremental sales are likely to come from cannibalization of its lower priced products. Dr. David assumed that "as much as" 68.1% of sales that could be lost without the cleaning feature. Using Dr. David's figure therefore results in a maximum rate of \$10.64 per unit that Rayovac would be willing to accept.
66. Braun would be willing to accept any royalty rate greater than zero, as Dr. David admits, since the hypothetical license will not cause Braun to lose sales. All royalty income would be incremental to Braun. Furthermore, since the market has been slowly shifting towards rotary shavers, licensing the technology to Rayovac would allow Braun to capitalize on that trend. Braun may also benefit from increased awareness and acceptance of the cleaning system concept through Remington advertising.

³⁸ R13166, R13185-R13186.

³⁹ Deposition testimony of Matthew Homes Parker, p. 43 (rough transcript).

⁴⁰ See e.g., R002468-2470.

⁴¹ Based on 2005 data. 2004 product-line data does not fully incorporate all product expenses as a result of a transition period following the acquisition of Remington by Rayovac.

CONFIDENTIAL - SUBJECT TO PROTECTIVE ORDER

67. Based on the above, a bargaining range is established at \$0 - \$10.64. In the remainder of this section, I discuss factors that would influence where the reasonable royalty rate would fall within this range.

Nature and Advantage of Patent

- *The nature of the patented invention; the character of the commercial embodiment of it as owned and produced by the licensor; and the benefits to those who have used the invention.*
- *The utility and advantages of the patent property over the old modes or devices, if any, that had been used for working out similar results.*

68. All shavers can be cleaned. The oldest mode of cleaning is to use a brush to clean out the debris in the shaver. More recently, shavers have been designed to be "washable" so that they can be rinsed under the sink.⁴² The advantage of the patented technology over the washable method appears to be the automatic cleaning function. However, there are also disadvantages to the consumer of the cleaning system, for example the need to purchase cleaning fluid cartridges and the large footprint of the cleaning base.
69. As will be discussed below, Braun and Rayovac both charge more for products that include the feature, but the products also include other advanced features as well. The added manufacturing costs of the Remington products that include the cleaning system is high compared to price premium that can be charged. Furthermore, although having the cleaning system as an additional feature to justify the higher price point was an advantage to Remington, the cleaning system is not the only way to achieve a higher price point. Norelco and Panasonic both offer high-end products that do not include a cleaning system. Norelco's high-end shavers offer a 4-Stage Multi-Blade Cutting System (for the Quadra models) and a Personal Comfort Control Selector Dial (for the Spectra models),⁴³ while the Panasonic high-end models offer an adjustable pivoting head, a 30° inner blade angle for a more precise and accurate shaving, a Linear motor, and a Turbo Cleaning Mode.⁴⁴

⁴² See e.g., R12845.

⁴³ Source: Philips website. Last visited on 6/10/05.

⁴⁴ Source: Panasonic website. Last visited on 6/10/05.

CONFIDENTIAL - SUBJECT TO PROTECTIVE ORDER

Profit Attributable to the Invention

- *The established profitability of the product made under the patent; its commercial success; and its current popularity.*
- *The portion of the realizable profit that should be credited to the invention as distinguished from non-patented elements, the manufacturing process, business risks, or significant features or improvements added by the infringer.*
- *The portion of the profit or of the selling price that may be customary in the particular business or in comparable businesses to allow for the use of the invention or analogous inventions.*
- *The extent to which the infringer has made use of the invention; and any evidence probative of the value of that use.*

70. In Exhibit 15, I present product line profitability information for Rayovac's accused products for FY2005. I have not included an analysis of FY2004 profitability because of data limitations due to a system conversion that occurred during that year. As a result of that conversion, many costs such as trade rebates and other customer expenses were not captured at the product level and therefore profits are overstated.⁴⁵ Rayovac tracks some expenses directly at the product level, but other expenses, such as marketing and advertising are tracked only at the higher category level of men's shaving products. Through May 16, 2005, the fiscal year advertising and marketing expenses have been almost 25% of net sales for the men's shaver product line. I understand that this percentage will be lower for the entire year, because advertising tends to be disproportionately higher in the first half of the year, primarily as a result of Father's Day promotions. I understand that the current forecasted level of advertising and marketing expense is approximately 17% of sales for the year, therefore I have used that percentage in my determination of product-line profits. Other expenses such as selling, general, and administrative costs are tracked only at a corporate level. I have not attempted to allocate those expenses to the product line, but doing so would result in still lower profitability. The analysis in Exhibit 15 shows an average profit per unit of \$29.31 before advertising and marketing and \$15.62 after an allocation of advertising and marketing expense.
71. Dr. David cites an industry rule of thumb frequently called the "25% rule" in his report. A recent article confirmed empirically the validity of this rule and in particular calculated that

⁴⁵ See deposition transcript of Alan Schoepp, p. 91.

CONFIDENTIAL - SUBJECT TO PROTECTIVE ORDER

for consumer products the median royalty rate as a percentage of the profits of the product incorporating the patented technology was closer to 30%.⁴⁶ This article also clarifies that the rule should be used with "fully-loaded" profits, that is profits after accounting for all of the operating expenses associated with product activity. Applying the 25%-30% range to Rayovac's profit of \$15.62 yields a royalty range of \$3.91 to \$4.69 per unit.

Derivative or Convoyed Sales

- *The effect of selling the patented specialty in promoting sales of other products of the licensee; that existing value of the invention to the licensor as a generator of sales of his non-patented items; and the extent of such derivative or convoyed sales.*

72. Rayovac does earn additional profits from the sale of cleaning solution and replacement foils and cutters. This factor would tend to increase the royalty rate.

Relationship of the Parties

- *The commercial relationship between the licensor and the licensee, such as, whether they are competitors in the same territory in the same line of business; or whether they are inventor and promoter.*

73. The parties are competitors, however, as Dr. David points out in his report, the sales that are subject to royalty are those that would not have been made by Braun, therefore this factor actually tends to decrease the rate.

Relevant Licensing Policies

- *The royalties received by the patentee for the licensing of the patents in suit, proving or tending to prove an established royalty.*
- *The rates paid by the licensee for the use of other patents comparable to the patents in suit.*
- *The licensor's established policy and marketing program to maintain its patent monopoly by not licensing others to use the invention or by granting license under special conditions designed to preserve the monopoly.*

⁴⁶ "Use of the 25 Per Cent Rule in Valuing IP," Robert Goldsneider, John Jarosz & Carla Mulhern, Les Nouvelles, December 2002.

CONFIDENTIAL - SUBJECT TO PROTECTIVE ORDER

74. I understand that Braun has not licensed the patent in the past and that there is no established royalty rate for this particular technology.⁴⁷
75. A recent study of royalty rates across different industries found that the median royalty rate for consumer products was 5% of sales.⁴⁸ Applying this royalty rate to the average selling price of \$85.80 (see Exhibit 15) would result in a royalty rate of \$4.29 per unit.

Terms and Scope

- *The duration of the patent and the term of the license.*
 - *The nature and scope of the license, an exclusive or non-exclusive; or a restricted or non-restricted in terms of the territory or with respect to whom the manufactured product may be sold.*
76. The term of the hypothetical license would be until 2015, twelve years following the introduction of the R-9500. In my opinion, this factor does not have a strong influence on the negotiated rate. Because Rayovac believed that there were design-around alternatives available, it may have been more willing to invest the research and development efforts given the relatively long remaining life of the patents, and therefore be less willing to accept a higher rate.
77. All else equal, an exclusive license would command a higher rate than a non-exclusive license. As discussed above, however, Norelco plans to introduce its own cleaning system product this year, therefore, the license would not protect Rayovac from further competition from products with cleaning systems, a fact which lessens the weight of this factor.

Conclusion with Respect to Reasonable Royalty

- *The amount a licensor and a licensee would have agreed upon if both had been reasonably and voluntarily trying to reach an agreement; that is, the amount which a prudent licensee – who desired, as a business proposition, to obtain a license to manufacture and sell a particular article embodying the patented invention – would have*

⁴⁷ Braun's Answers to Remington's First Set of Interrogatories, Answer to Interrogatory No. 10, p. 10; Deposition testimony of Matthew Homes Parker, pp. 30-31 (rough transcript).

⁴⁸ "Use of the 25 Per Cent Rule in Valuing IP," Robert Goldsneider, John Jarosz & Carla Mulhern, Les Nouvelles, December 2002.

CONFIDENTIAL - SUBJECT TO PROTECTIVE ORDER

been willing to pay as a royalty and yet be able to make a reasonable profit and which amount would have been acceptable to a prudent patentee who was willing to grant a license.

- The opinion testimony of qualified experts.
78. In my opinion, based on consideration of the bargaining context, the negotiating range, and the factors discussed above, a reasonable royalty rate is \$5.00 per unit. This rate represents more than 25% of the profits earned by Rayovac and is consistent with (though again slightly higher than) the median royalty rate on consumer goods licenses generally of 5% of sales.

B. Calculation of Royalty Damages

79. In Exhibit 16 and 17, I calculate the royalty damages under two different scenarios. In Exhibit 16, I multiply the royalty rate by the total of Rayovac's allegedly infringing unit sales. This calculation results in royalty damages of \$2.25 million. In Exhibit 17, I apply the royalty rate only to those sales not treated as lost sales in the lost profits calculation. This calculation results in royalty damages of \$1.74 million that would then be added to the lost profits damages.

C. Prejudgment Interest

80. It is my understanding that the Court may award prejudgment interest to compensate plaintiffs for the time that has passed between when they would have received the money had infringement not occurred, and when the damages award is granted. I agree with Dr. David that the appropriate interest rate to use is the historical Treasury bill rate. I expect to be asked to compute prejudgment interest at the time of trial.

Date: June 13, 2005

Submitted by:



Laura B. Stamm